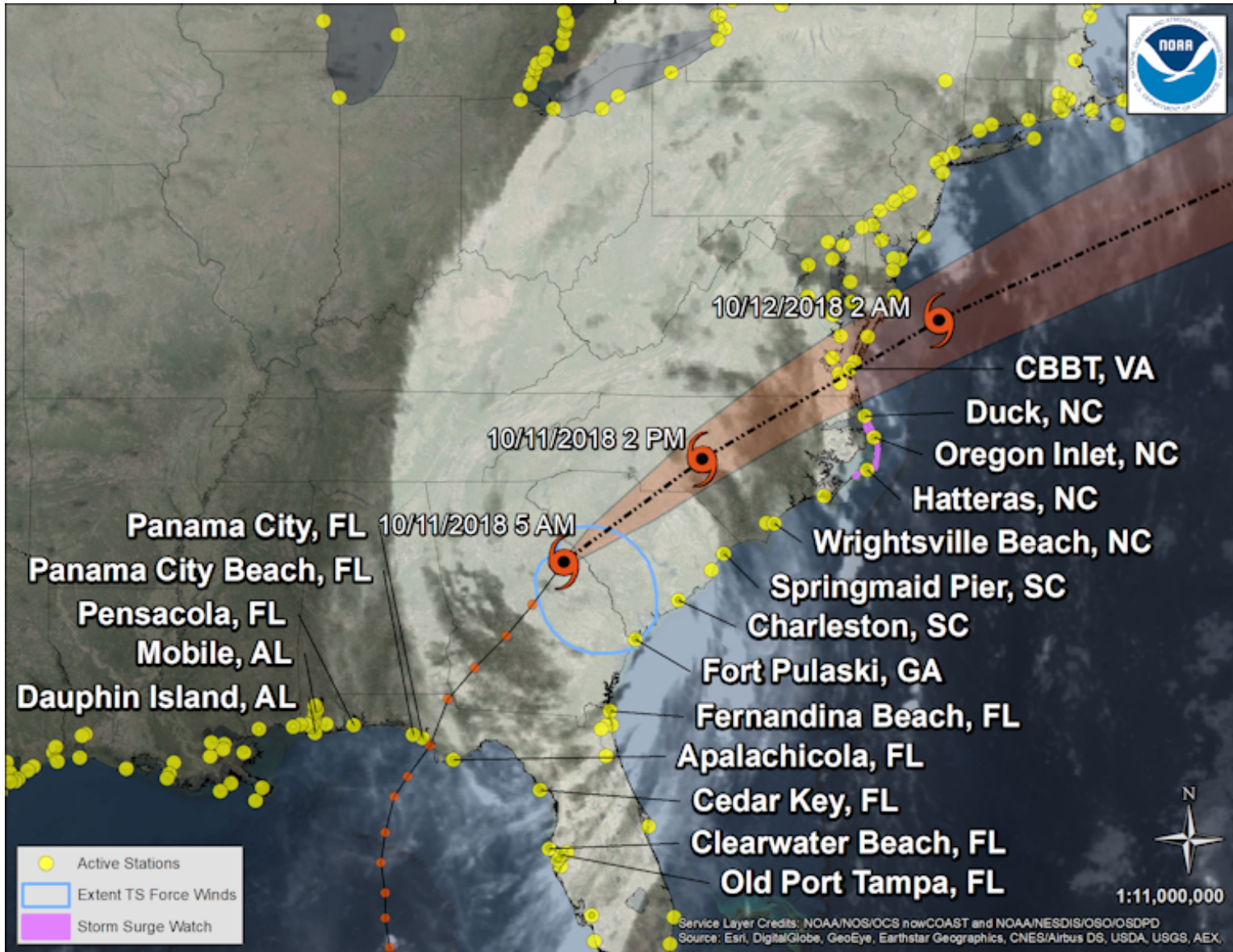




Tropical Storm Michael QuickLook Posted: 06:00 EDT 10/11/2018

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 10/11/2018 06:00 EDT, water levels at stations along the Gulf of Mexico coastline are still elevated. Measured water levels from central Florida to Louisiana range from 0.8 to 2.3 feet above tidal predictions as Hurricane Michael moves further north and inland. Water levels along the East Coast are fairly steady at this time.

Winds around the region are reading values between 10 to 20 knots with gusts up to 25 knots. Winds speeds are decreasing around where Hurricane Michael made landfall (near Panama City, FL). Barometric pressure has returned to normal levels in most of the Gulf and is starting to fall slightly farther north in North Carolina.

Water Level and Meteorological plots available below are updated automatically. A line denoting Mean Higher High Water (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional real-time and historical inundation information for select stations affected by this storm, please visit Coastal Inundation Dashboard. For additional data, please see the Center for Operational Oceanographic Products & Services website.

For more information or archived products and reports, please visit the Storm QuickLook Homepage.

Analyst: ADM

Select National Hurricane Center Advisory:

Tropical Storm Michael Advisory Number 19
NWS National Hurricane Center Miami FL
500 AM EDT Thu Oct 11 2018

...MICHAEL CONTINUES TO WEAKEN OVER EASTERN GEORGIA...
...WINDS INCREASING ALONG PORTIONS OF THE GEORGIA AND SOUTH CAROLINA COASTS...

WATCHES AND WARNINGS

----- CHANGES WITH THIS ADVISORY:

The Storm Surge Warning is discontinued for the Gulf coast of Florida.

The Tropical Storm Warning is discontinued along the Georgia and Florida coast south of Altamaha Sound.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Storm Surge Watch is in effect for...

* Ocracoke Inlet North Carolina to Duck North Carolina

A Tropical Storm Warning is in effect for...

* Altamaha Sound Georgia to Duck North Carolina

* Pamlico and Albemarle Sounds

A Tropical Storm Warning means that tropical storm conditions are expected somewhere within the warning area.

A Storm Surge Watch means there is a possibility of life-threatening inundation, from rising water moving inland from the coastline.

Interests elsewhere across the southeastern United States should monitor the progress of Michael.

For storm information specific to your area, including possible inland watches and warnings, please monitor products

issued by your local National Weather Service forecast office.

DISCUSSION AND OUTLOOK

At 500 AM EDT, the center of Tropical Storm Michael was located ABOUT 30 MI W OF AUGUSTA GEORGIA and ABOUT 90 MI NE OF MACON GEORGIA. Michael is moving toward the northeast near 21 mph and this motion is expected to continue with an increase in forward speed through tonight. A turn toward the east-northeast and an even faster forward speed are expected on Friday. On the forecast track, the center of Michael will move through eastern Georgia into central South Carolina this morning, then moves across portions of central and eastern North Carolina and southeastern Virginia into the Atlantic Ocean by late tonight or early Friday.

Maximum sustained winds have decreased to near 50 mph with higher gusts. Some additional weakening is expected today while the center remains over land. However, Michael is forecast to intensify as it becomes a post-tropical low over the Atlantic late tonight or early Friday.

Tropical-storm-force winds extend outward up to 160 miles mainly to the southeast of the center. Louisville, Georgia recently reported a wind gust of 60 mph, and there are several reports of wind gusts of 40-50 mph in the Augusta area.

The estimated minimum central pressure based on surface observations is 983 mb.

HAZARDS AFFECTING LAND

STORM SURGE: Water levels are receding along the Gulf Coast of Florida. Along the southeast coast of the United States, the combination of a dangerous storm surge and the tide will continue to cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water has the potential to reach the following heights above ground if peak surge occurs at the time of high tide...

Sound side of the North Carolina Outer Banks from Ocracoke Inlet to Duck...2-4 ft

WIND: Tropical storm conditions are occurring over portions of eastern and southeastern Georgia, and will spread across portions of central and southern South Carolina this morning.

Tropical storm conditions are expected to spread northward within the warning area along the southeast U.S. coast beginning this morning through Friday.

Gale- to storm-force winds are expected over portions of southeastern Virginia, extreme northeastern North Carolina, and the Delmarva Peninsula as Michael becomes post-tropical off the Mid-Atlantic coast late tonight or early Friday.

RAINFALL: Michael is expected to produce total rain accumulations of 4 to 7 inches from eastern Georgia to the southern Mid-Atlantic states and 1 to 3 inches over the northern Mid-Atlantic states and coastal southern New England. Isolated maximum amounts of 9 inches are possible in North Carolina and Virginia. This rainfall could lead to life-threatening flash floods.

TORNADOES: Isolated tornadoes are possible today over portions of eastern South Carolina, eastern and central North Carolina, and southeast Virginia.

SURF: Swells generated by Michael will affect the coasts of the eastern, northern, and western Gulf of Mexico through this morning. These swells are likely to cause life-threatening surf and rip current conditions. Please consult

products from your local weather office.

NEXT ADVISORY

Next intermediate advisory at 800 AM EDT.

Next complete advisory at 1100 AM EDT.

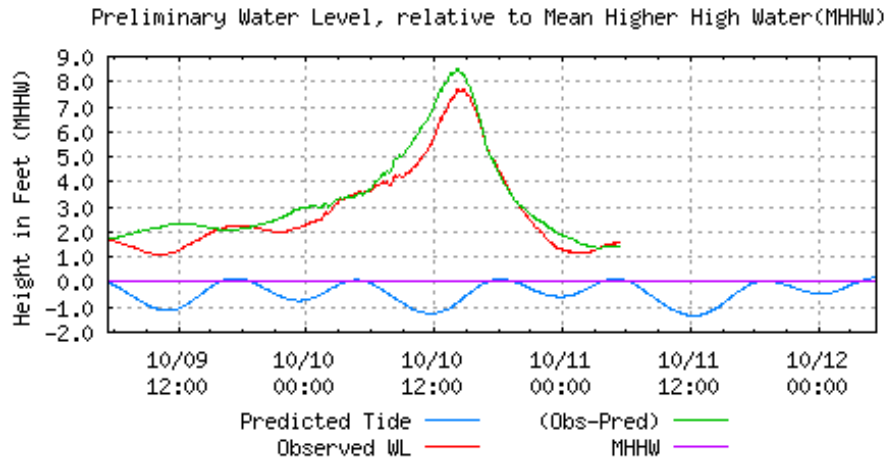
\$\$

Forecaster Beven

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: [Apalachicola - Water Level](#), [Apalachicola - Winds](#), [Apalachicola - Barometric](#), [Panama City Beach - Water Level](#), [Panama City Beach - Winds](#), [Panama City Beach - Barometric](#), [Panama City - Water Level](#), [Panama City - Barometric](#), [Cedar Key - Water Level](#), [Cedar Key - Winds](#), [Cedar Key - Barometric](#), [Clearwater Beach - Water Level](#), [Clearwater Beach - Winds](#), [Clearwater Beach - Barometric](#), [Old Port Tampa - Water Level](#), [Old Port Tampa - Winds](#), [Pensacola - Water Level](#), [Pensacola - Winds](#), [Pensacola - Barometric](#), [Dauphin Island - Water Level](#), [Dauphin Island - Winds](#), [Dauphin Island - Barometric](#), [Coast Guard Sector Mobile - Water Level](#), [Coast Guard Sector Mobile - Winds](#), [Fernandina Beach - Water Level](#), [Fort Pulaski - Water Level](#), [Charleston, Cooper River Entrance - Water Level](#), [Springmaid Pier - Water Level](#), [Wrightsville Beach - Water Level](#), [Wrightsville Beach - Winds](#), [USCG Station Hatteras - Water Level](#), [USCG Station Hatteras - Winds](#), [Oregon Inlet Marina - Water Level](#), [Oregon Inlet Marina - Winds](#), [Duck - Water Level](#), [Duck - Winds](#), [CBBT, Chesapeake Channel - Water Level](#), [CBBT, Chesapeake Channel - Winds](#)

NOAA/NOS/CO-OPS 8728690 Apalachicola, FL



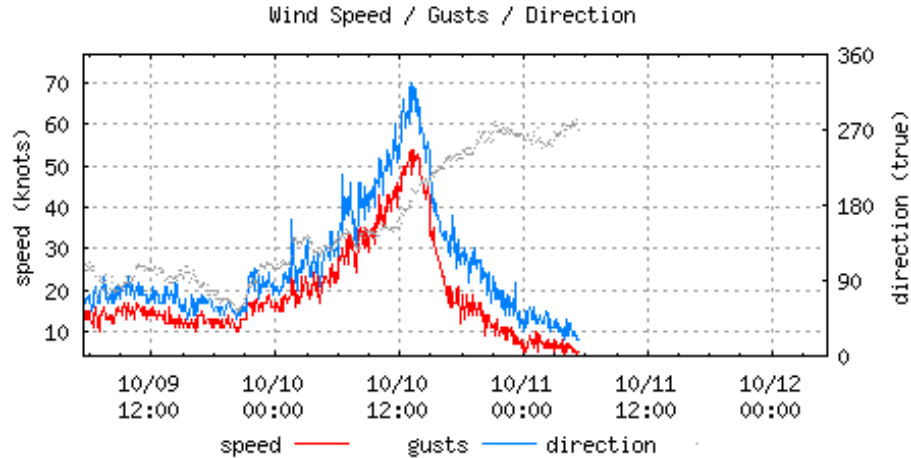
Last Observed Sample: 10/11/2018 05:24 (EDT). Data relative to MHHW

Observed: 1.54 ft. Predicted: 0.12 ft. Residual: 1.42 ft.

Historical Maximum Water Level: Jul 10 2005, 6.43 ft.

Next High Tide: 10/11/2018 19:04 (EDT), 0.05 ft.

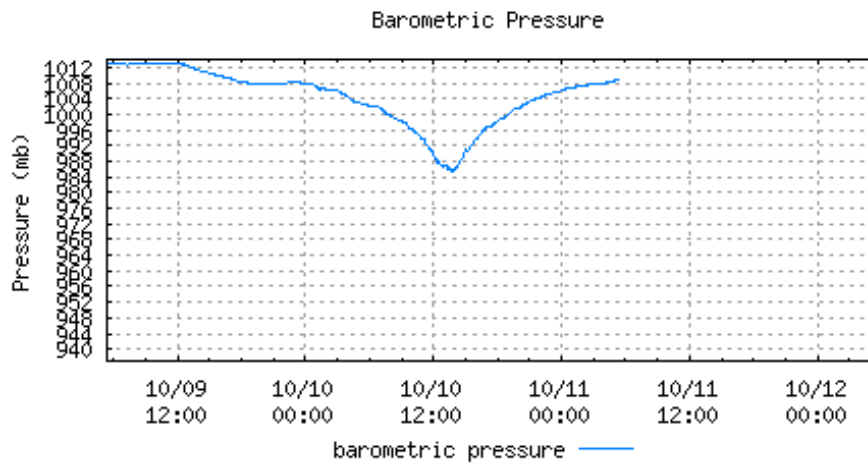
NOAA/NOS/CO-OPS 8728690 Apalachicola, FL



Last Observed Sample: 10/11/2018 05:24 (EDT)

Wind Speed: 4 knots Gusts: 6 knots Direction: 281° T

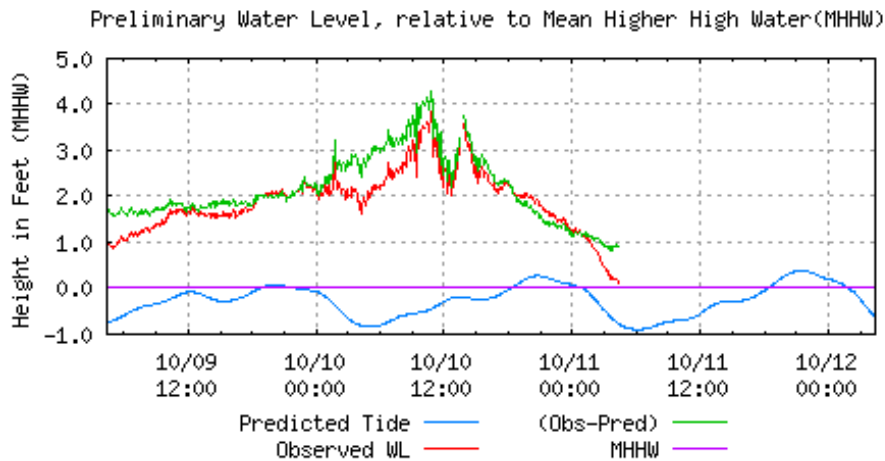
NOAA/NOS/CO-OPS 8728690 Apalachicola, FL



Last Observed Sample: 10/11/2018 05:24 (EDT)

Barometric Pressure: 1008.7 mb

NOAA/NOS/CO-OPS 8729210 Panama City Beach, FL



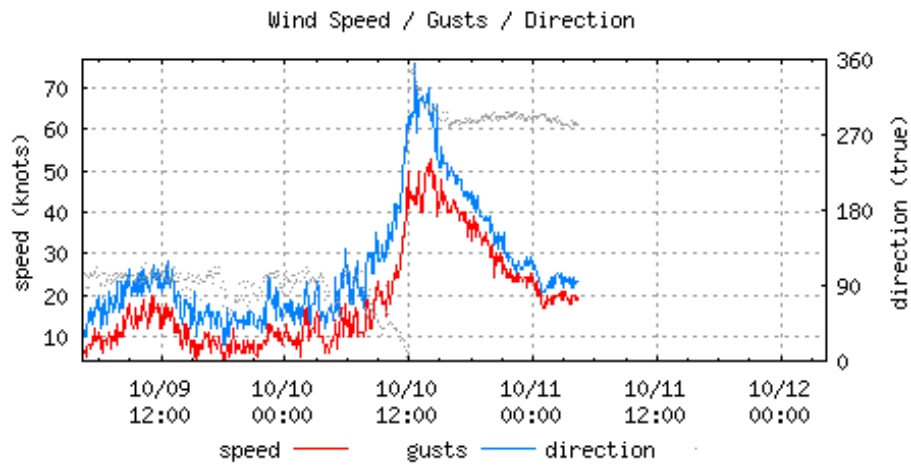
Last Observed Sample: 10/11/2018 04:24 (CDT). Data relative to MHHW

Observed: 0.15 ft. Predicted: -0.78 ft. Residual: 0.93 ft.

Historical Maximum Water Level: Oct 4 1995, 7.07 ft.

Next High Tide: 10/11/2018 21:26 (CDT), 0.38 ft.

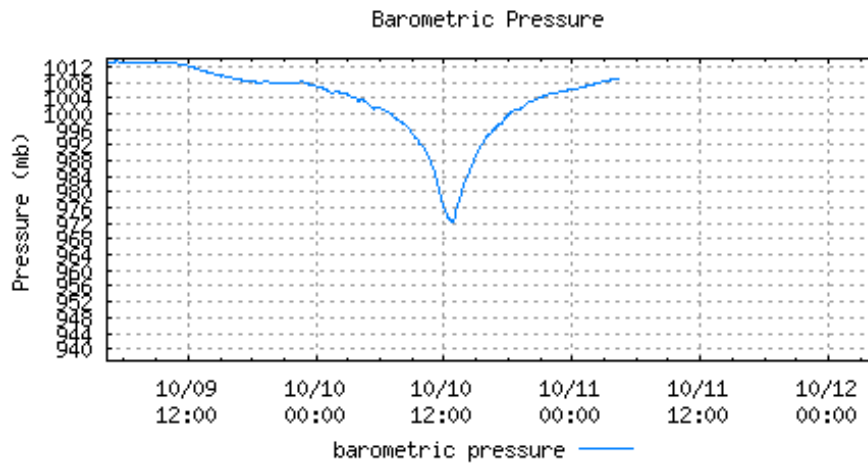
NOAA/NOS/CO-OPS 8729210 Panama City Beach, FL



Last Observed Sample: 10/11/2018 04:24 (CDT)

Wind Speed: 20 knots Gusts: 23 knots Direction: 288° T

NOAA/NOS/CO-OPS 8729210 Panama City Beach, FL

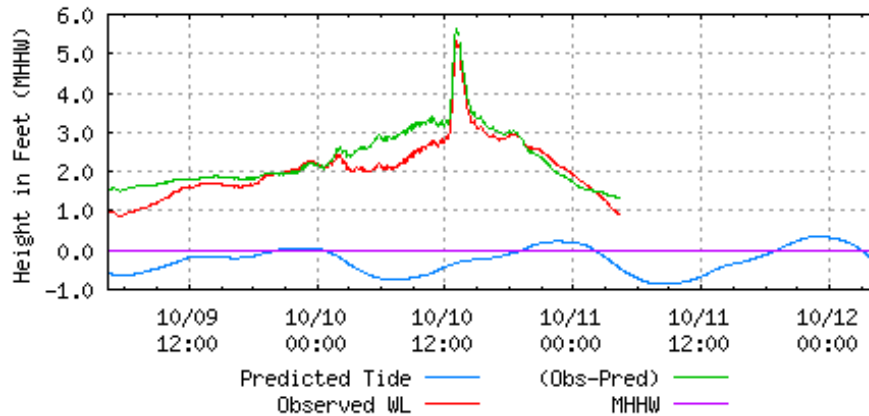


Last Observed Sample: 10/11/2018 04:24 (CDT)

Barometric Pressure: 1009.0 mb

NOAA/NOS/CO-OPS 8729108 Panama City, FL

Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Last Observed Sample: 10/11/2018 04:24 (CDT). Data relative to MHHW

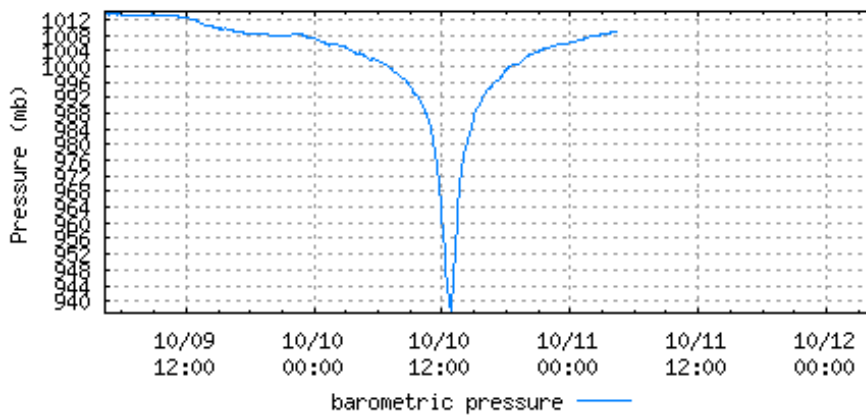
Observed: 0.90 ft. Predicted: -0.46 ft. Residual: 1.36 ft.

Historical Maximum Water Level: Oct 4 1995, 5.72 ft.

Next High Tide: 10/11/2018 22:59 (CDT), 0.35 ft.

NOAA/NOS/CO-OPS 8729108 Panama City, FL

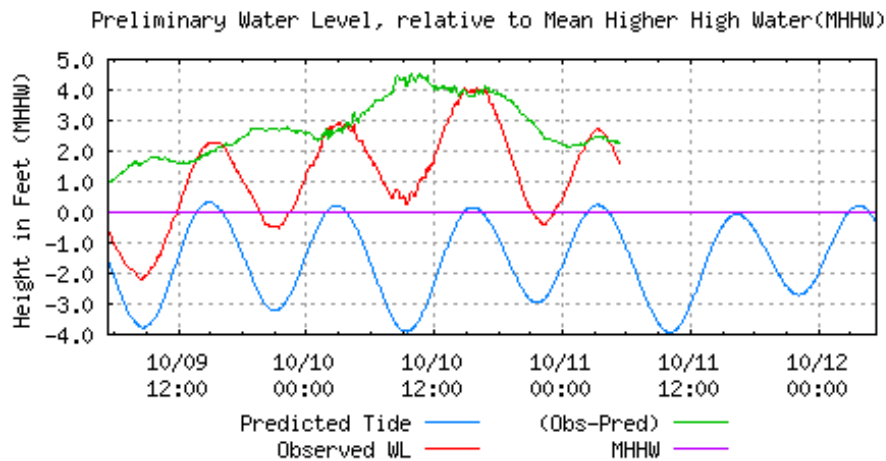
Barometric Pressure



Last Observed Sample: 10/11/2018 04:24 (CDT)

Barometric Pressure: 1008.9 mb

NOAA/NOS/CO-OPS 8727520 Cedar Key, FL



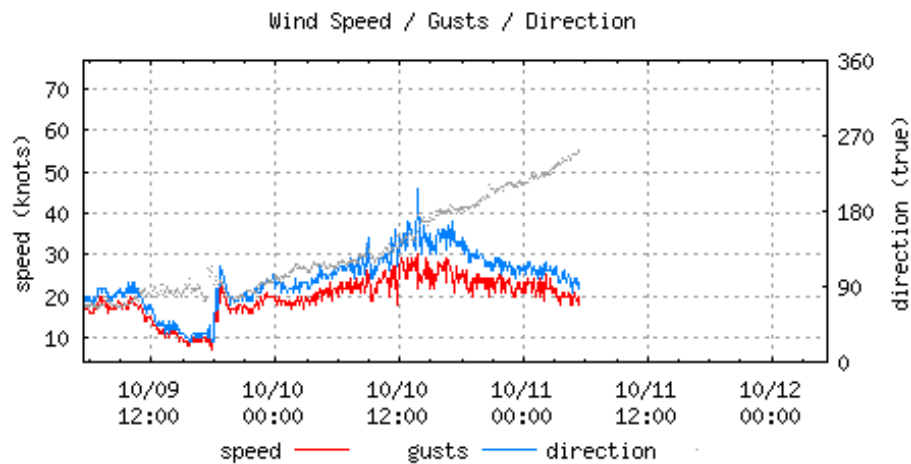
Last Observed Sample: 10/11/2018 05:24 (EDT). Data relative to MHHW

Observed: 1.58 ft. Predicted: -0.70 ft. Residual: 2.28 ft.

Historical Maximum Water Level: Sep 2 2016, 5.98 ft.

Next High Tide: 10/11/2018 16:19 (EDT), -0.07 ft.

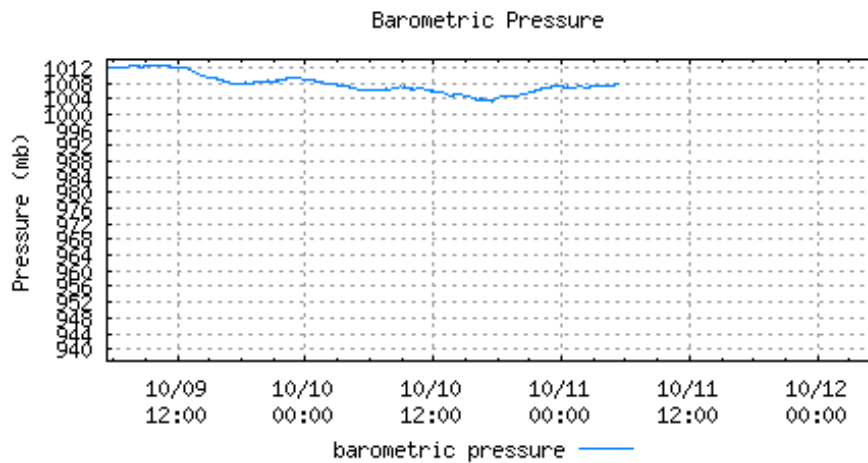
NOAA/NOS/CO-OPS 8727520 Cedar Key, FL



Last Observed Sample: 10/11/2018 05:24 (EDT)

Wind Speed: 20 knots Gusts: 23 knots Direction: 250° T

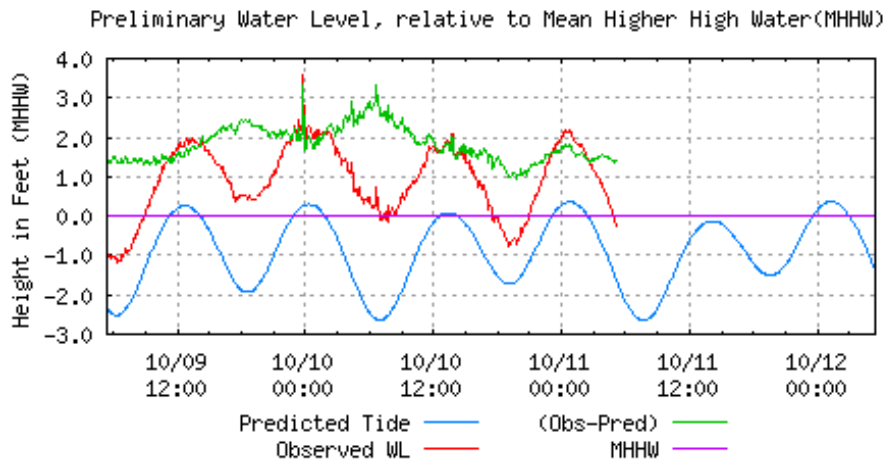
NOAA/NOS/CO-OPS 8727520 Cedar Key, FL



Last Observed Sample: 10/11/2018 05:24 (EDT)

Barometric Pressure: 1007.7 mb

NOAA/NOS/CO-OPS 8726724 Clearwater Beach, FL



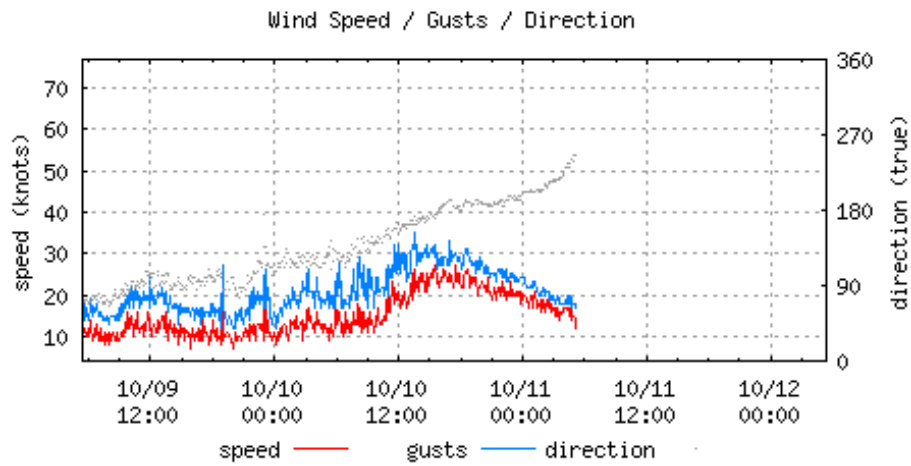
Last Observed Sample: 10/11/2018 05:18 (EDT). Data relative to MHHW

Observed: -0.33 ft. Predicted: -1.74 ft. Residual: 1.41 ft.

Historical Maximum Water Level: Mar 13 1993, 4.00 ft.

Next High Tide: 10/11/2018 14:07 (EDT), -0.13 ft.

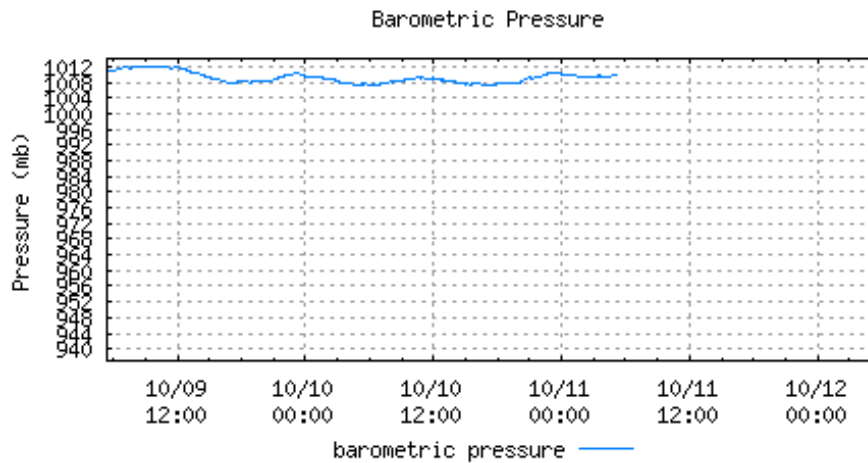
NOAA/NOS/CO-OPS 8726724 Clearwater Beach, FL



Last Observed Sample: 10/11/2018 05:18 (EDT)

Wind Speed: 14 knots Gusts: 16 knots Direction: 245° T

NOAA/NOS/CO-OPS 8726724 Clearwater Beach, FL

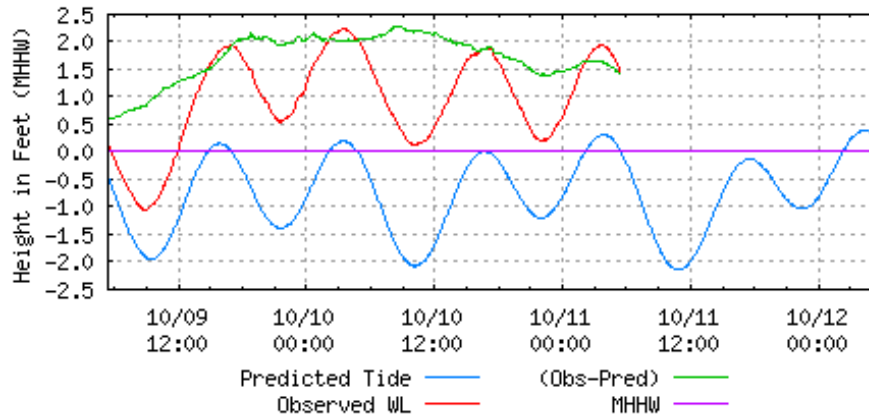


Last Observed Sample: 10/11/2018 05:18 (EDT)

Barometric Pressure: 1009.8 mb

NOAA/NOS/CO-OPS 8726607 Old Port Tampa, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/11/2018 05:24 (EDT). Data relative to MHHW

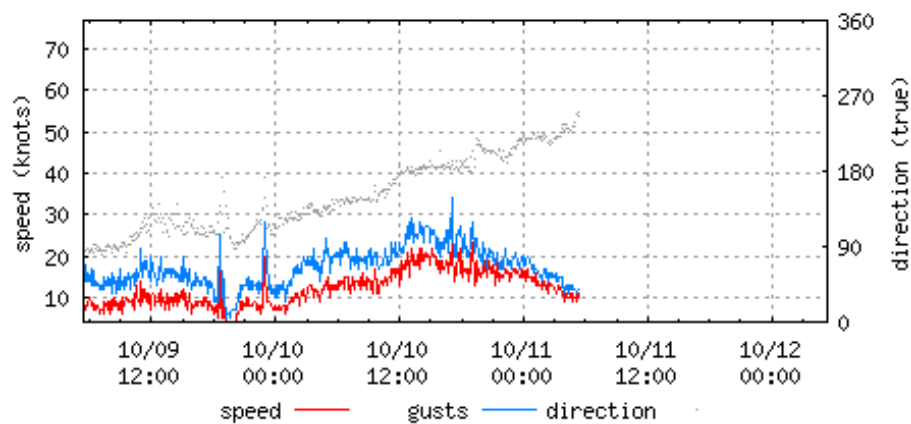
Observed: 1.47 ft. Predicted: 0.03 ft. Residual: 1.44 ft.

Historical Maximum Water Level: Oct 8 1996, 3.60 ft.

Next High Tide: 10/11/2018 17:31 (EDT), -0.13 ft.

NOAA/NOS/CO-OPS 8726607 Old Port Tampa, FL

Wind Speed / Gusts / Direction

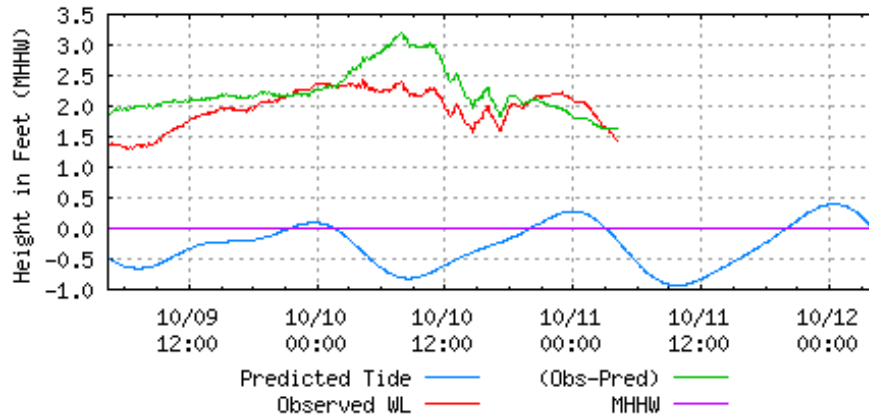


Last Observed Sample: 10/11/2018 05:24 (EDT)

Wind Speed: 10 knots Gusts: 12 knots Direction: 245° T

NOAA/NOS/CO-OPS 8729840 Pensacola, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/11/2018 04:18 (CDT). Data relative to MHHW

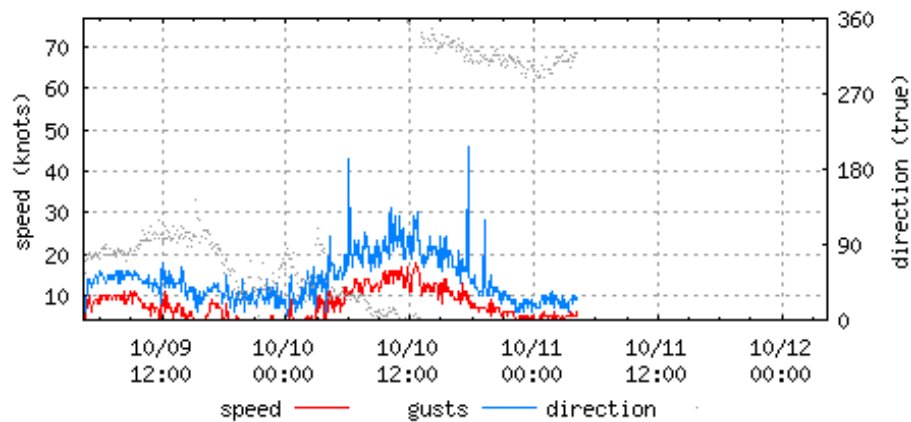
Observed: 1.40 ft. Predicted: -0.23 ft. Residual: 1.63 ft.

Historical Maximum Water Level: Sep 16 2004, 9.54 ft.

Next High Tide: 10/12/2018 00:27 (CDT), 0.40 ft.

NOAA/NOS/CO-OPS 8729840 Pensacola, FL

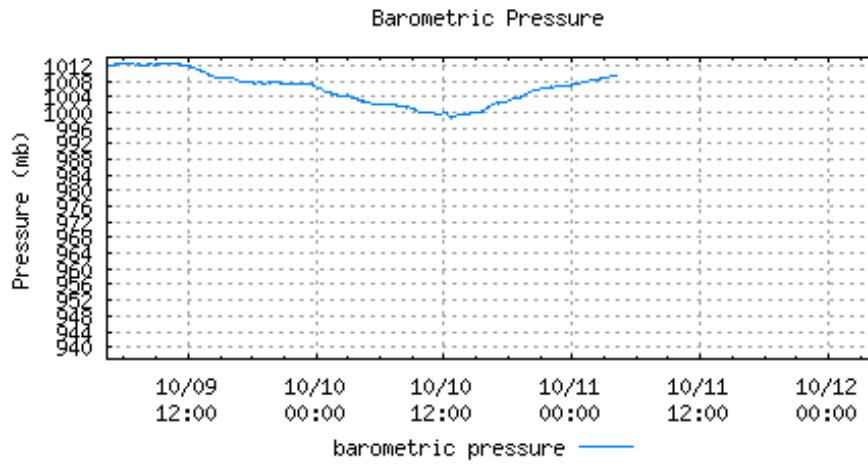
Wind Speed / Gusts / Direction



Last Observed Sample: 10/11/2018 04:18 (CDT)

Wind Speed: 5 knots Gusts: 9 knots Direction: 313° T

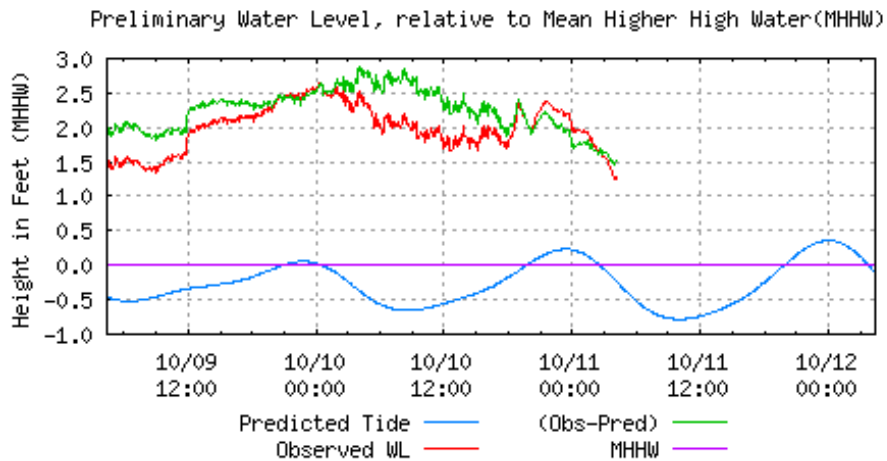
NOAA/NOS/CO-OPS 8729840 Pensacola, FL



Last Observed Sample: 10/11/2018 04:18 (CDT)

Barometric Pressure: 1009.5 mb

NOAA/NOS/CO-OPS 8735180 Dauphin Island, AL



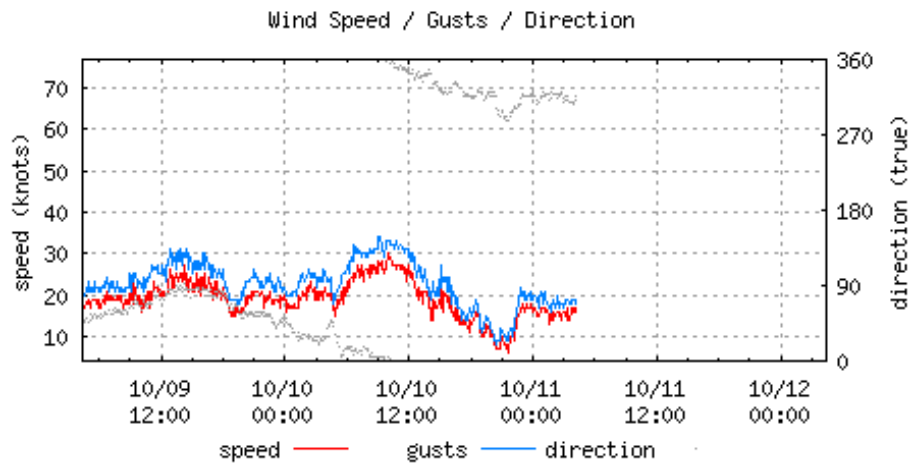
Last Observed Sample: 10/11/2018 04:18 (CDT). Data relative to MHHW

Observed: 1.24 ft. Predicted: -0.26 ft. Residual: 1.50 ft.

Historical Maximum Water Level: Sep 12 1979, 7.96 ft.

Next High Tide: 10/12/2018 00:02 (CDT), 0.36 ft.

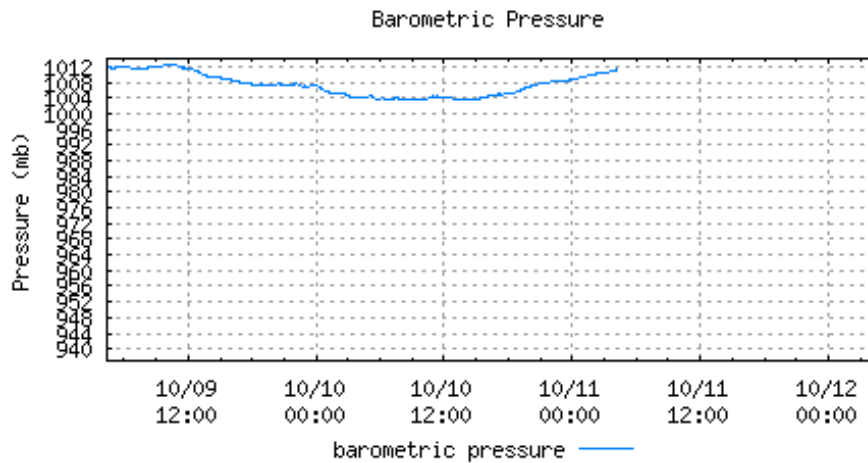
NOAA/NOS/CO-OPS 8735180 Dauphin Island, AL



Last Observed Sample: 10/11/2018 04:18 (CDT)

Wind Speed: 16 knots Gusts: 19 knots Direction: 318° T

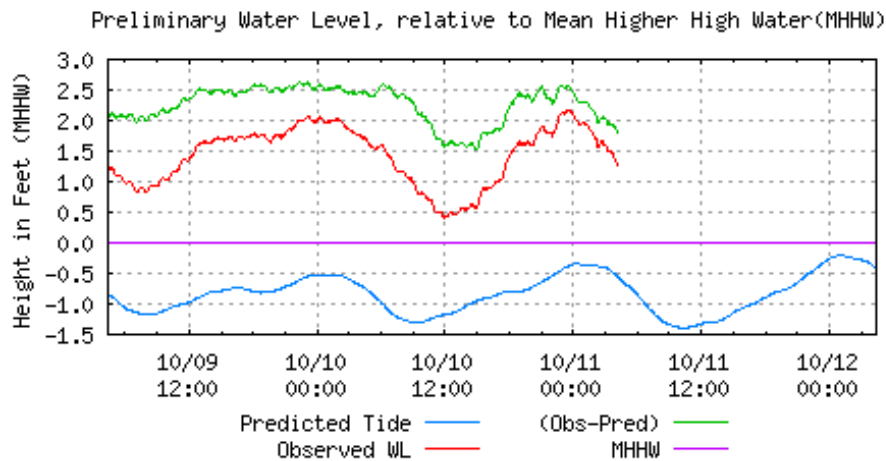
NOAA/NOS/CO-OPS 8735180 Dauphin Island, AL



Last Observed Sample: 10/11/2018 04:18 (CDT)

Barometric Pressure: 1011.2 mb

NOAA/NOS/CO-OPS 8736897 Coast Guard Sector Mobile, AL



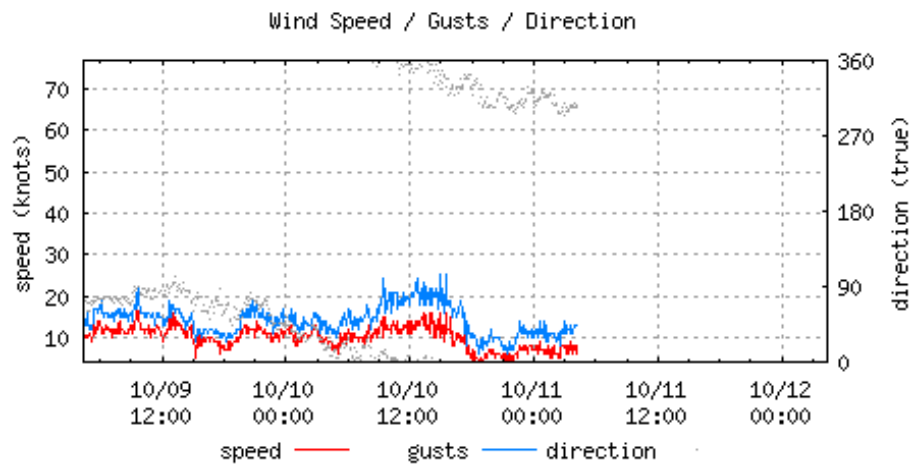
Last Observed Sample: 10/11/2018 04:18 (CDT). Data relative to MHHW

Observed: 1.24 ft. Predicted: -0.58 ft. Residual: 1.82 ft.

Historical Maximum Water Level: Oct 8 2017, 5.38 ft.

Next High Tide: 10/12/2018 01:01 (CDT), -0.21 ft.

NOAA/NOS/CO-OPS 8736897 Coast Guard Sector Mobile, AL

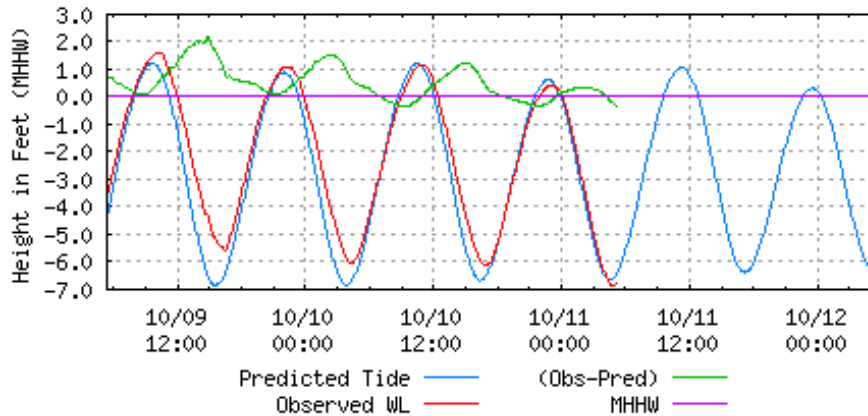


Last Observed Sample: 10/11/2018 04:18 (CDT)

Wind Speed: 7 knots Gusts: 11 knots Direction: 311° T

NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/11/2018 05:18 (EDT). Data relative to MHHW

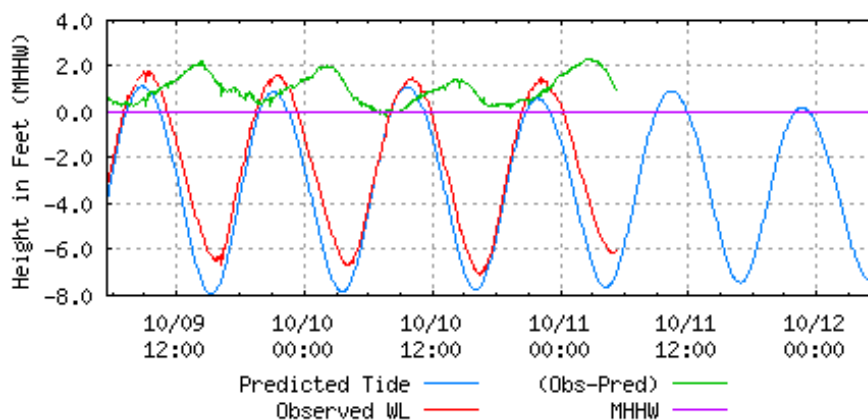
Observed: -6.73 ft. Predicted: -6.35 ft. Residual: -0.38 ft.

Historical Maximum Water Level: Oct 2 1898, 6.91 ft.

Next High Tide: 10/11/2018 11:15 (EDT), 1.07 ft.

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



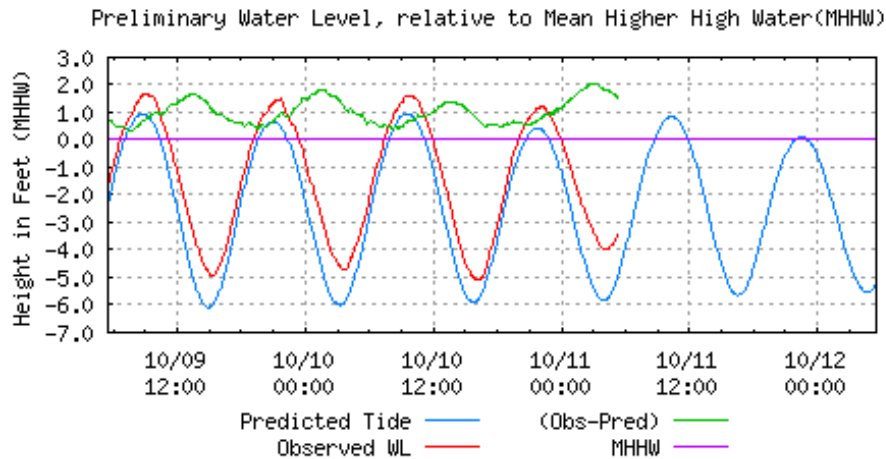
Last Observed Sample: 10/11/2018 05:18 (EDT). Data relative to MHHW

Observed: -6.05 ft. Predicted: -6.94 ft. Residual: 0.89 ft.

Historical Maximum Water Level: Oct 8 2016, 4.94 ft.

Next High Tide: 10/11/2018 10:23 (EDT), 0.92 ft.

NOAA/NOS/CO-OPS 8665530 Charleston, Cooper River Entrance, SC



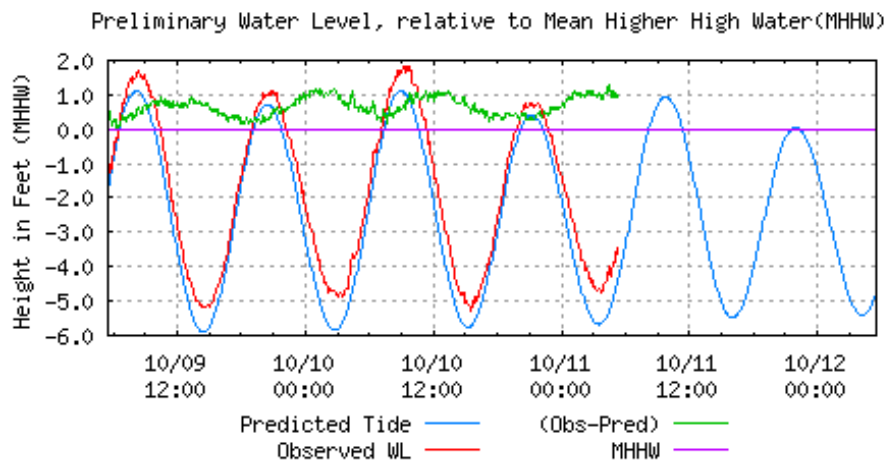
Last Observed Sample: 10/11/2018 05:18 (EDT). Data relative to MHHW

Observed: -3.43 ft. Predicted: -4.97 ft. Residual: 1.54 ft.

Historical Maximum Water Level: Sep 21 1989, 6.76 ft.

Next High Tide: 10/11/2018 10:19 (EDT), 0.84 ft.

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC



Last Observed Sample: 10/11/2018 05:18 (EDT). Data relative to MHHW

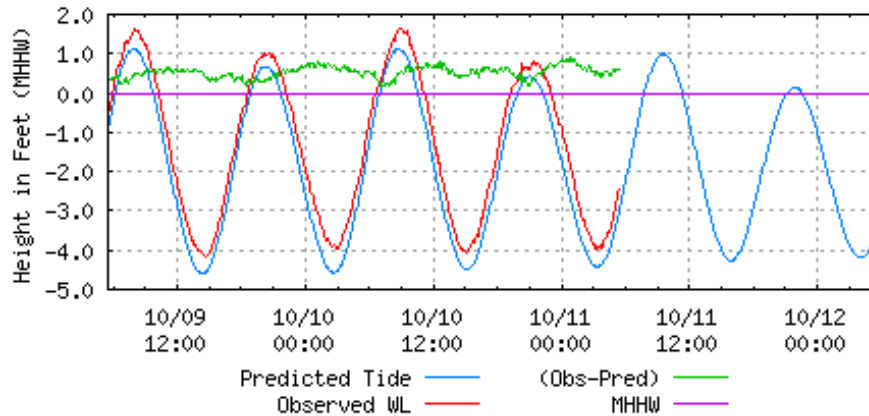
Observed: -3.47 ft. Predicted: -4.41 ft. Residual: 0.94 ft.

Historical Maximum Water Level: Sep 21 1989, 8.77 ft.

Next High Tide: 10/11/2018 09:44 (EDT), 0.94 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/11/2018 05:24 (EDT). Data relative to MHHW

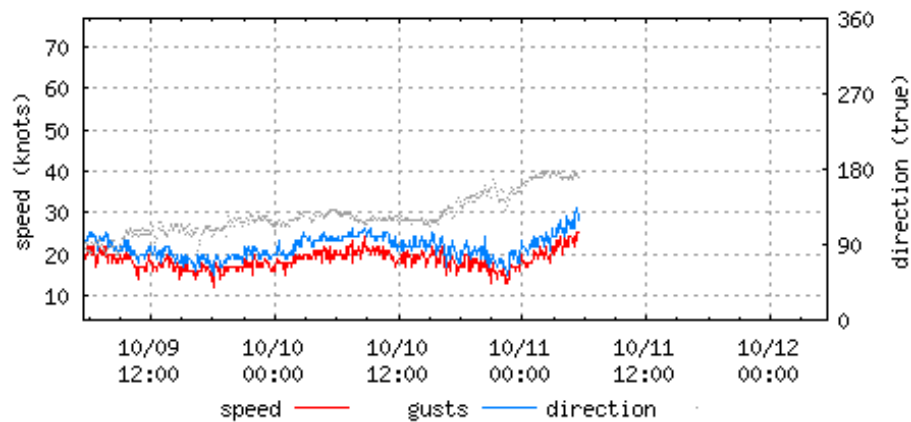
Observed: -2.47 ft. Predicted: -3.05 ft. Residual: 0.58 ft.

Historical Maximum Water Level: Oct 4 2015, 2.97 ft.

Next High Tide: 10/11/2018 09:32 (EDT), 1.00 ft.

NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

Wind Speed / Gusts / Direction

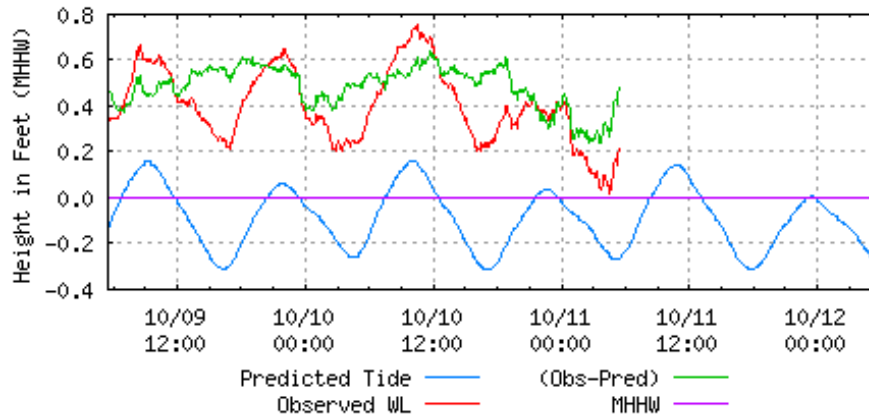


Last Observed Sample: 10/11/2018 05:24 (EDT)

Wind Speed: 25 knots Gusts: 28 knots Direction: 171° T

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/11/2018 05:24 (EDT). Data relative to MHHW

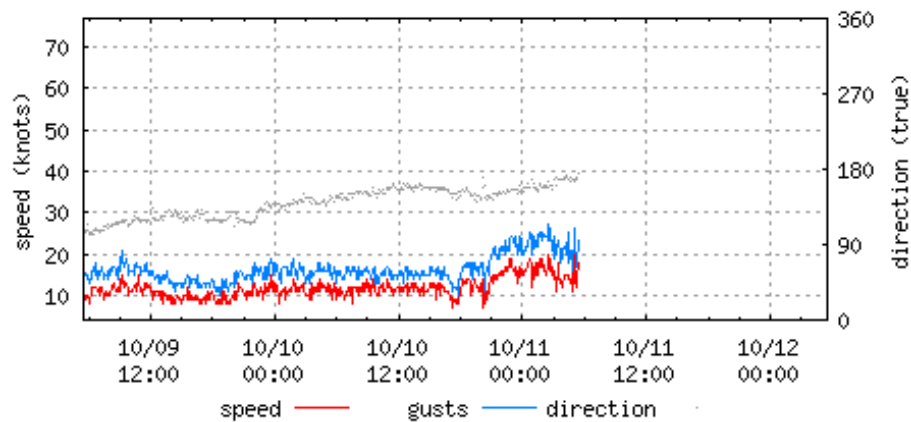
Observed: 0.22 ft. Predicted: -0.26 ft. Residual: 0.48 ft.

Historical Maximum Water Level: Oct 9 2016, 5.76 ft.

Next High Tide: 10/11/2018 10:47 (EDT), 0.15 ft.

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

Wind Speed / Gusts / Direction

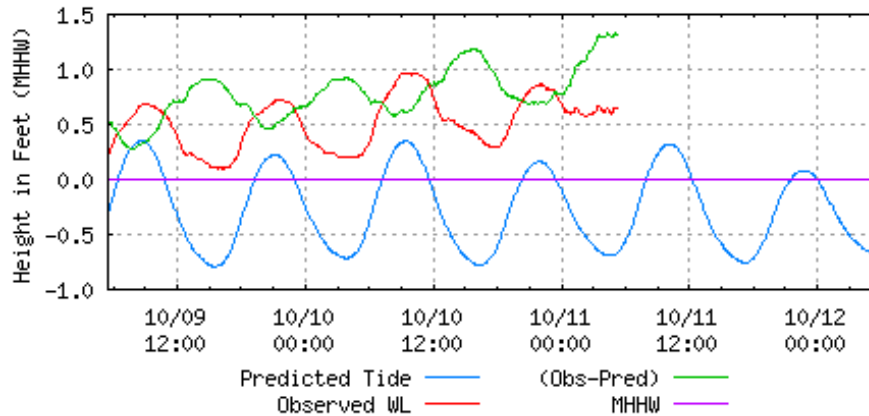


Last Observed Sample: 10/11/2018 05:24 (EDT)

Wind Speed: 18 knots Gusts: 23 knots Direction: 175° T

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC

Preliminary Water Level, relative to Mean Higher High Water (MHHW)



Last Observed Sample: 10/11/2018 05:12 (EDT). Data relative to MHHW

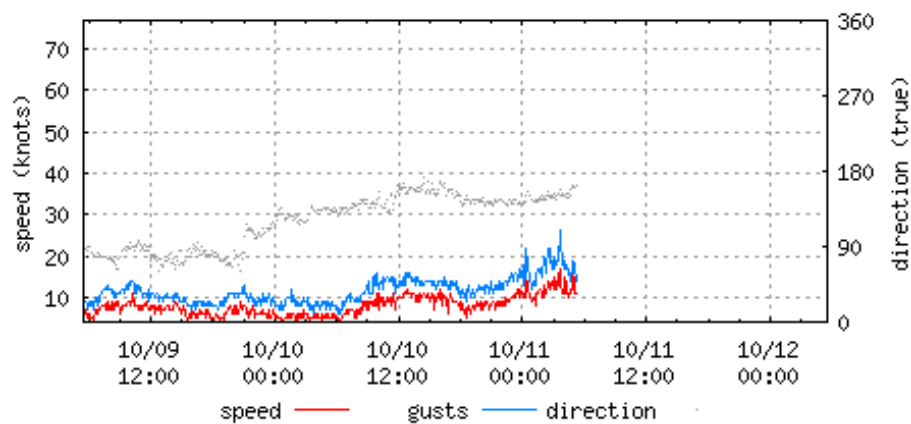
Observed: 0.64 ft. Predicted: -0.67 ft. Residual: 1.31 ft.

Historical Maximum Water Level: Aug 28 2011, 6.31 ft.

Next High Tide: 10/11/2018 10:07 (EDT), 0.32 ft.

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC

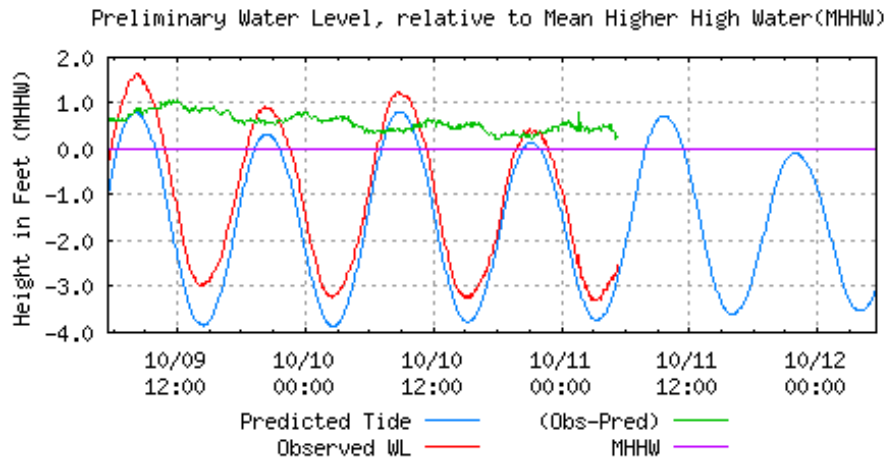
Wind Speed / Gusts / Direction



Last Observed Sample: 10/11/2018 05:12 (EDT)

Wind Speed: 11 knots Gusts: 14 knots Direction: 162° T

NOAA/NOS/CO-OPS 8651370 Duck, NC



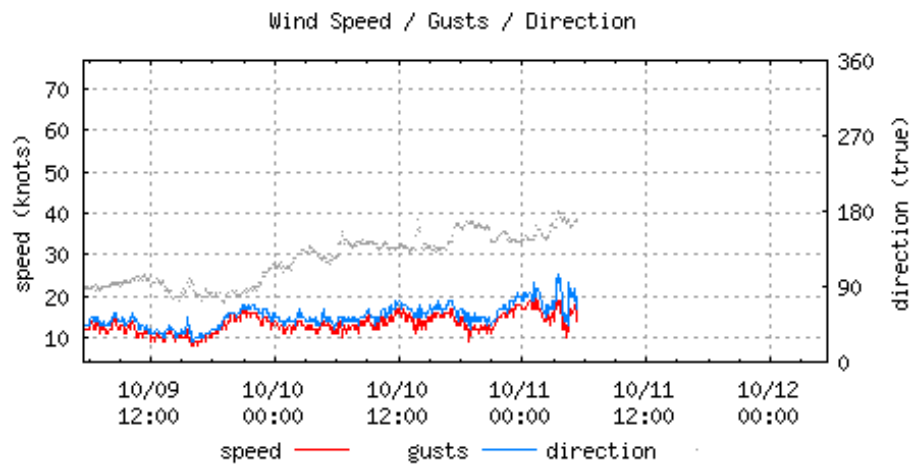
Last Observed Sample: 10/11/2018 05:18 (EDT). Data relative to MHHW

Observed: -2.53 ft. Predicted: -2.81 ft. Residual: 0.28 ft.

Historical Maximum Water Level: Sep 18 2003, 4.13 ft.

Next High Tide: 10/11/2018 09:35 (EDT), 0.73 ft.

NOAA/NOS/CO-OPS 8651370 Duck, NC

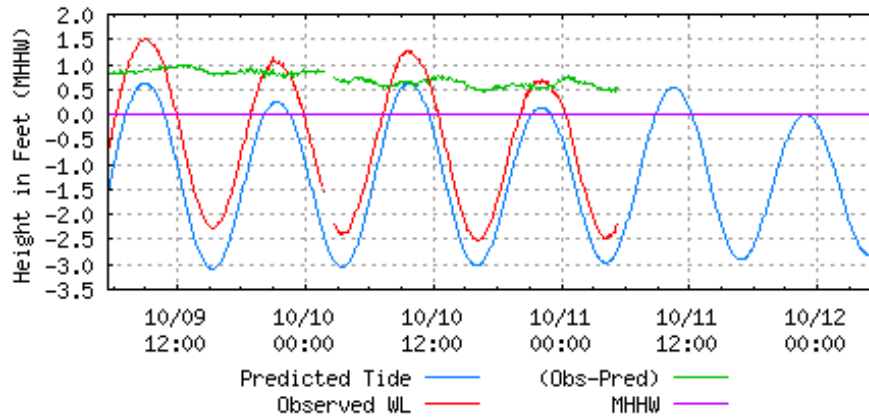


Last Observed Sample: 10/11/2018 05:18 (EDT)

Wind Speed: 14 knots Gusts: 17 knots Direction: 169° T

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/11/2018 05:12 (EDT). Data relative to MHHW

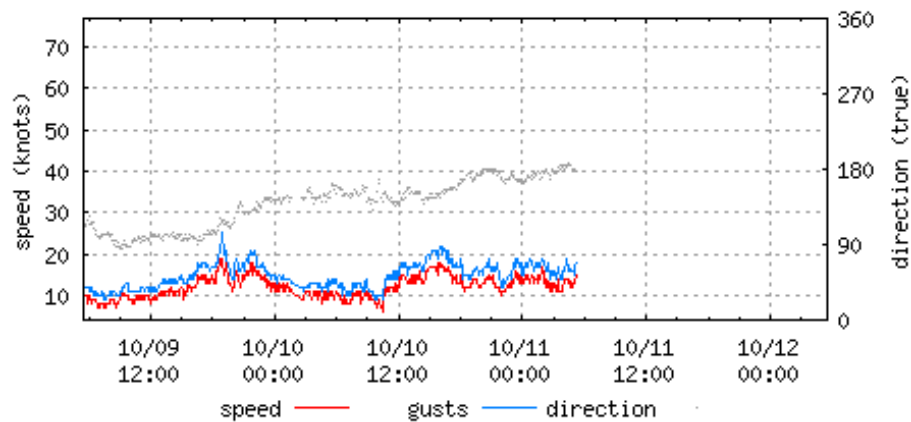
Observed: -2.21 ft. Predicted: -2.73 ft. Residual: 0.52 ft.

Historical Maximum Water Level: n/a

Next High Tide: 10/11/2018 10:29 (EDT), 0.54 ft.

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA

Wind Speed / Gusts / Direction



Last Observed Sample: 10/11/2018 05:12 (EDT)

Wind Speed: 15 knots Gusts: 18 knots Direction: 178° T

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8728690	Apalachicola, FL	10/11/2018 05:24 (EDT)	1.54 ft	0.12 ft	1.42 ft	7.73 ft
8729210	Panama City Beach, FL	10/11/2018 04:24 (CDT)	0.15 ft	-0.78 ft	0.93 ft	3.86 ft
8729108	Panama City, FL	10/11/2018 04:24 (CDT)	0.90 ft	-0.46 ft	1.36 ft	5.31 ft
8727520	Cedar Key, FL	10/11/2018 05:24 (EDT)	1.58 ft	-0.70 ft	2.28 ft	4.09 ft
8726724	Clearwater Beach, FL	10/11/2018 05:18 (EDT)	-0.33 ft	-1.74 ft	1.41 ft	2.17 ft
8726607	Old Port Tampa, FL	10/11/2018 05:24 (EDT)	1.47 ft	0.03 ft	1.44 ft	1.94 ft
8729840	Pensacola, FL	10/11/2018 04:18 (CDT)	1.40 ft	-0.23 ft	1.63 ft	2.42 ft
8735180	Dauphin Island, AL	10/11/2018 04:18 (CDT)	1.24 ft	-0.26 ft	1.50 ft	2.46 ft
8736897	Coast Guard Sector Mobile, AL	10/11/2018 04:18 (CDT)	1.24 ft	-0.58 ft	1.82 ft	2.17 ft
8720030	Fernandina Beach, FL	10/11/2018 05:18 (EDT)	-6.73 ft	-6.35 ft	-0.38 ft	1.15 ft
8670870	Fort Pulaski, GA	10/11/2018 05:18 (EDT)	-6.05 ft	-6.94 ft	0.89 ft	1.50 ft
8665530	Charleston, Cooper River Entrance, SC	10/11/2018 05:18 (EDT)	-3.43 ft	-4.97 ft	1.54 ft	1.63 ft
8661070	Springmaid Pier, SC	10/11/2018 05:18 (EDT)	-3.47 ft	-4.41 ft	0.94 ft	1.84 ft
8658163	Wrightsville Beach, NC	10/11/2018 05:24 (EDT)	-2.47 ft	-3.05 ft	0.58 ft	1.63 ft
8654467	USCG Station Hatteras, NC	10/11/2018 05:24 (EDT)	0.22 ft	-0.26 ft	0.48 ft	0.76 ft
8652587	Oregon Inlet Marina, NC	10/11/2018 05:12 (EDT)	0.64 ft	-0.67 ft	1.31 ft	0.97 ft
8651370	Duck, NC	10/11/2018 05:18 (EDT)	-2.53 ft	-2.81 ft	0.28 ft	1.25 ft
8638901	CBBT, Chesapeake Channel, VA	10/11/2018 05:12 (EDT)	-2.21 ft	-2.73 ft	0.52 ft	1.28 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)
National Oceanic and Atmospheric Administration | U.S. Department of Commerce